SONY

4-239-952-**12**(2)

Mini Hi-Fi Component System

Operating Instructions

Owner's Record

The model and serial numbers are located on the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

COMPACT disc DIGITAL AUDIO TEXT

GAME SYNC MIXING

MHC-GS300AV
MHC-GS200

© 2002 Sony Corporation

Warning

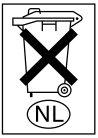
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

To prevent fire, do not cover the ventilation of the apparatus with news papers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus. To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

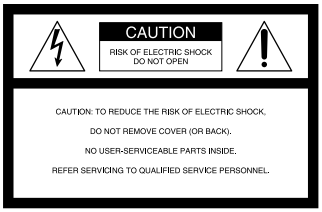
This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.



Don't throw away the battery with general house waste, dispose of it correctly as chemical waste.

ENERGY STAR® is a U.S. registered mark.
As an ENERGY STAR® partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

NOTICE FOR THE CUSTOMERS IN THE U.S.A.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

CAUTION

- The use of optical instruments with this product will increase eye hazard.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

NOTICE FOR THE CUSTOMERS IN CANADA

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

MHC-GS300AV only

This stereo system is equipped with the Dolby* Pro Logic Surround decoder.

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol ; are trademarks of Dolby Laboratories. Confidential unpublished works. ©1992-1997 Dolby Laboratories. All rights reserved.

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* MHC-GS300AV only

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.

Illustration number

PLAY MODE/DIRECTION 23 (14 – 17, 23 – 25)

Name of button/part — Reference page

Main unit

MHC-GS300AV

ALPHABETICAL ORDER

A – O

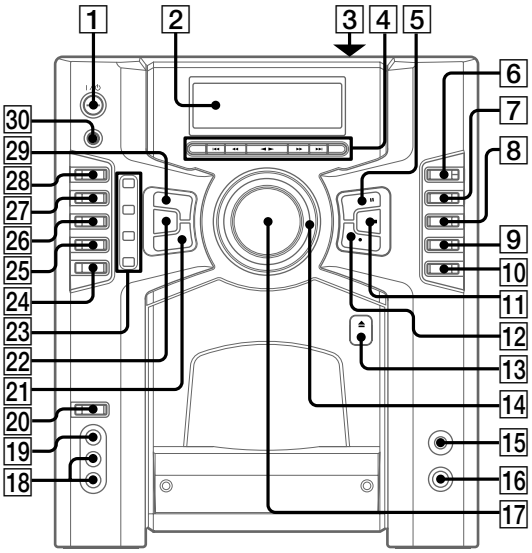
5.1CH/VIDEO (MD) 25 (35 – 37)
ALBM +/– 4 (19)
AUDIO IN L/R jacks 18 (34)
CD 28 (14 – 17, 19, 24)
CD SYNC 10 (24, 25)
CLEAR 21 (16, 22, 39)
DISC SELECT 14 (13 – 17, 19, 24)
DISPLAY 30 (22, 29, 30, 39)
Display window 2
DOLBY PRO LOGIC 6 (12, 28)
ENTER 22 (15 – 17, 20 – 22, 25, 26, 32)
GAME 24 (30)
GAME MIXING 20 (31)
KEYBOARD INPUT jack 16 (33)
MENU 29 (16, 17, 20 – 22)
MULTI ROOM 9 (28)

P – Z

PAUSE ❚❚ 5 (15, 23 – 25)
PHONES jack 15
PLAY MODE/DIRECTION 23 (14 – 17, 23 – 25)
PRESET +/– 4 (20 – 22)
PRESET EQ 8 (27)
REC ● PAUSE/START 12 (24, 25)
REPEAT/FM MODE 23 (15, 22)
STOP ■ 11 (15, 23, 24, 35, 39)
SURROUND MODE 7 (27)
TAPE 26 (23)
Tape deck 3
TIMER SELECT 23 (26, 32, 37)
TIMER SET 23 (12, 25, 32)
TUNER/BAND 27 (20 – 22)
TUNING +/– 4 (20 – 22)
VIDEO IN jack 19 (34)
VOLUME 17

BUTTON DESCRIPTIONS

I/⏻ (power) 1
◀◀ (rewind) 4
◀ ▶ (play) 4
▶▶ (fast forward) 4
I◀◀ (go back) 4
▶▶I (go forward) 4
⏏ PUSH (front cover) 13
⏏ PUSH (tape deck) 3



ALPHABETICAL ORDER

A – O

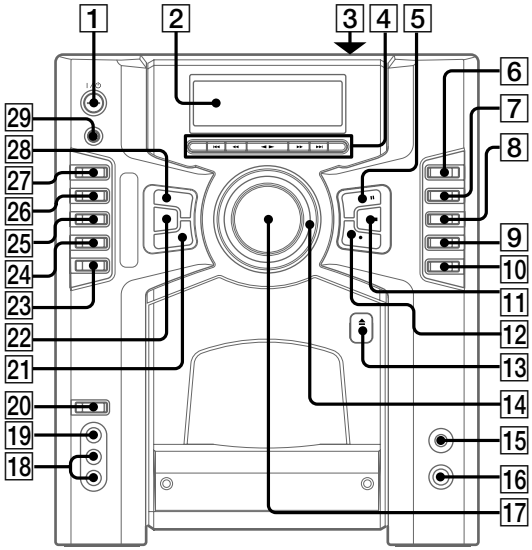
ALBM +/– 4 (19)
AUDIO IN L/R jacks 18 (34)
CD 27 (14 – 17, 19, 24)
CD SYNC 10 (24, 25)
CLEAR 21 (16, 22, 39)
DISC SELECT 14 (13 – 17, 19, 24)
DISPLAY 29 (22, 29, 30, 39)
Display window 2
ENTER 22 (15 – 17, 20 – 22, 25, 26, 32)
GAME 23 (30)
GAME MIXING 20 (31)
KEYBOARD INPUT jack 16 (33)
MENU 28 (16, 17, 20 – 22)

P – Z

PAUSE ⏸ 5 (15, 23 – 25)
PHONES jack 15
PLAY MODE/DIRECTION 8 (14 – 17, 23 – 25)
PRESET +/– 4 (20 – 22)
REC ● PAUSE/START 12 (24, 25)
REPEAT/FM MODE 9 (15, 22)
STOP ■ 11 (15, 23, 24, 35, 39)
TAPE 25 (23)
Tape deck 3
TIMER SELECT 7 (26, 32, 37)
TIMER SET 6 (12, 25, 32)
TUNER/BAND 26 (20 – 22)
TUNING +/– 4 (20 – 22)
VIDEO IN jack 19 (34)
VIDEO (MD) 24 (35, 37)
VOLUME 17

BUTTON DESCRIPTIONS

I/⏻ (power) 1
◀◀ (rewind) 4
◀ ▶ (play) 4
▶▶ (fast forward) 4
I◀◀ (go back) 4
▶▶I (go forward) 4
⏏ PUSH (front cover) 13
⏏ PUSH (tape deck) 3



Remote Control

For MHC-GS300AV

ALPHABETICAL ORDER

A – O

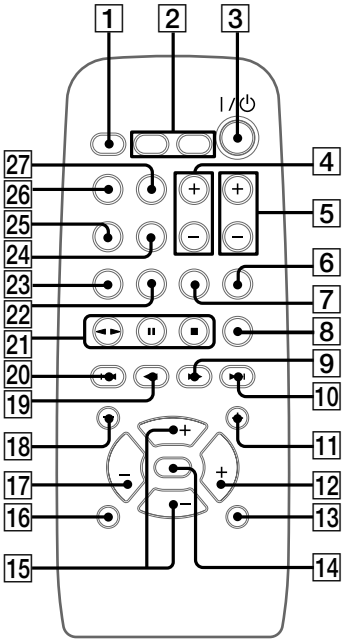
5.1CH 25 (36)
ALBM +/ALBM – 11 18 (19)
BALANCE LEFT/RIGHT 2 (12)
CD 23 (14 – 17, 19, 24)
CENTER +/– 4 (12)
DISC +/DISC – 12 17 (13 – 16, 19)
DISPLAY 8 (22, 29, 30)
GAME 6 (30)
GROOVE 14 (26)

P – Z

PRESET EQ 13 (27)
PRESET +/PRESET – 10 20 (20 – 22)
PRO LOGIC 27 (12, 28)
REAR +/– 5 (12)
SLEEP 1 (31)
SURROUND 16 (27)
TAPE 7 (23)
TEST TONE 24 (12)
TUNER/BAND 22 (20 – 22)
TUNING +/TUNING – 9 19 (20 – 22)
VIDEO (MD) 26 (35, 37)
VOL +/– 15

BUTTON DESCRIPTIONS

I/⏻ (power) 3
◄ ► (play) 21
II (pause) 21
■ (stop) 21
I◄◄ (go back) 20
◄◄ (rewind) 19
►► (fast forward) 9
►►I (go forward) 10



For MHC-GS200

ALPHABETICAL ORDER

A – O

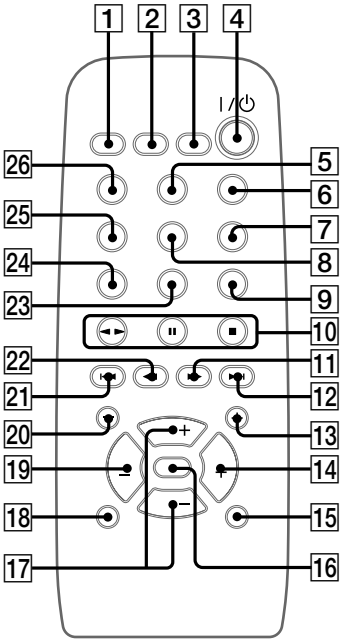
ALBM +/ALBM – 13 20 (19)
CD 25 (14 – 17, 19, 24)
CD SYNC 24 (24, 25)
DISC +/DISC – 14 19 (13 – 16, 19)
DISPLAY 26 (22, 29, 30)
ENTER 5 (15 – 17, 20 – 22, 25, 26, 32)
GAME 6 (30)
GROOVE 16 (26)

P – Z

PLAY MODE 2 (14 – 17, 23)
PRESET EQ 15 (27)
PRESET +/PRESET – 12 21 (20 – 22)
REC 23 (24)
REPEAT 3 (15)
SLEEP 1 (31)
SURROUND 18 (27)
TAPE 7 (23)
TUNER/BAND 8 (20 – 22)
TUNING +/TUNING – 11 22 (20 – 22)
VIDEO (MD) 9 (35, 37)
VOL +/– 17

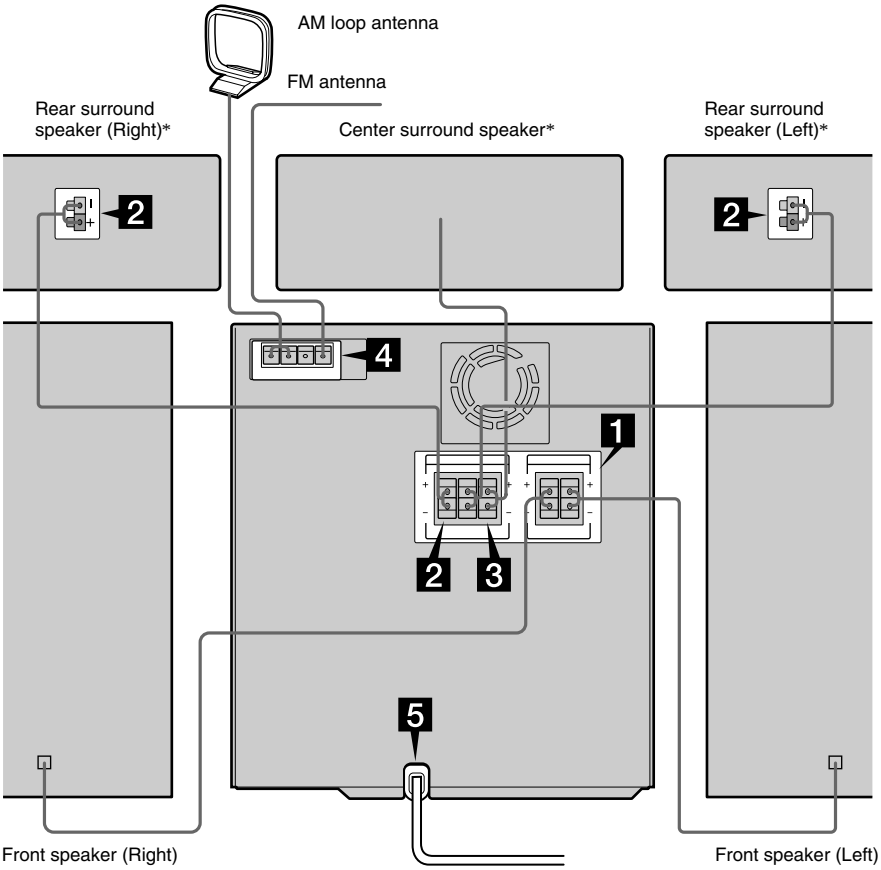
BUTTON DESCRIPTIONS

I/⏻ (power) 4
◄ ► (play) 10
II (pause) 10
■ (stop) 10
I◄◄ (go back) 21
◄◄ (rewind) 22
►► (fast forward) 11
►►I (go forward) 12



Hooking up the system

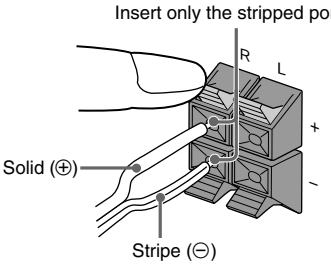
Perform the following procedure 1 to 5 to hook up your system using the supplied cords and accessories. MHC-GS300AV is the model used for illustration purpose.



* MHC-GS300AV only

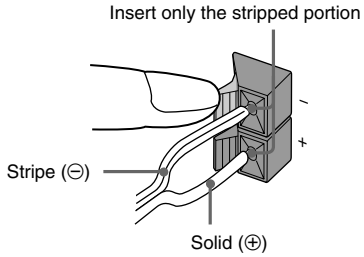
1 Connect the front speakers.

Connect the speaker cords to the FRONT SPEAKER jacks on the unit as shown below.



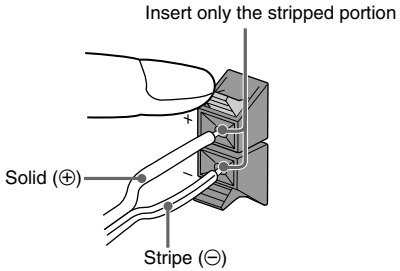
2 Connect the rear surround speakers. (MHC-GS300AV only)

Connect the speaker cords to the SURROUND SPEAKER REAR jacks on the unit and to the jacks on the rear surround speakers as shown below.



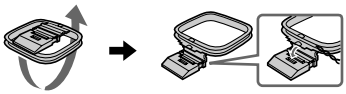
3 Connect the center surround speaker. (MHC-GS300AV only)

Connect the speaker cords to the SURROUND SPEAKER CENTER jacks on the unit as shown below.

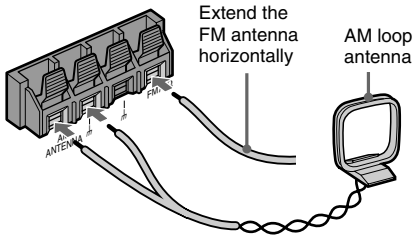


4 Connect the FM/AM antennas.

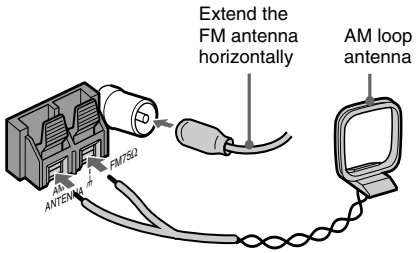
Set up the AM loop antenna, then connect it.



Jack type Ⓐ



Jack type Ⓑ



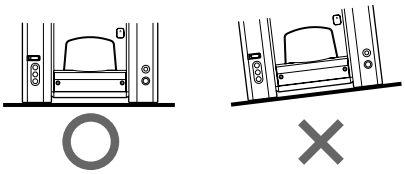
continued

5 Connect the power cord to a wall outlet.

The demonstration appears in the display. When you press I/⏻, the system turns on and the demonstration automatically ends.

Note on placement

Be sure to place this unit on a horizontal place. If the unit is slanted, it may cause malfunction or damage to the system.



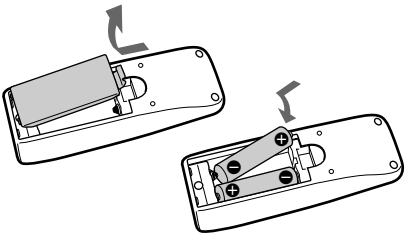
To connect optional components

See page 34 for details.

Notes

- Keep the speaker cords away from the antennas to prevent noise.
- Do not place the rear surround speakers on top of a TV. This may cause distortion of the colors in the TV screen.
- Be sure to connect both left and right rear surround speakers. Otherwise, the sound will not be heard.
- The type of speakers supplied vary according to the model you purchased (see “Specifications” on page 42).

Inserting two size AA (R6) batteries into the remote



Tip

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

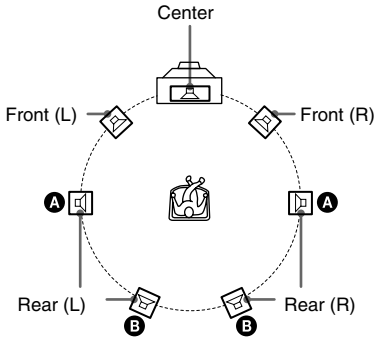
Note

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

Setting up your speakers for Dolby Pro Logic

(MHC-GS300AV only)

Positioning the speakers



Each speaker should face the listening position. Better surround effect will result if all speakers are set at the same distance from the listening position.

Place the front speakers 5 to 10 cm or more away from the left and right of the television.

Place the center speaker on the top-center of the TV set.

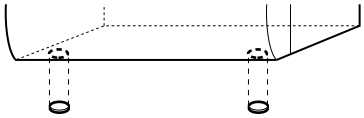
The placement of rear speakers greatly depends on the configuration of the room. The rear speakers may be placed on both sides of the listening position Ⓐ or behind the listening position Ⓑ.

Tip

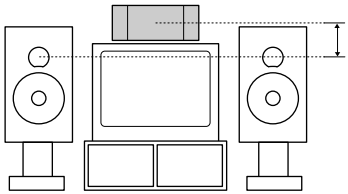
For MHC-GS300AV customers, you can connect an optional sub woofer speaker (see page 36).

Setting the center speaker

Attach the supplied speaker pads to the bottom of the center surround speaker to stabilize the speaker and prevent it from slipping.

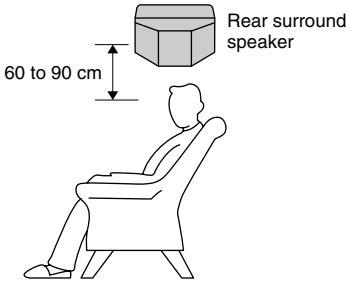


Place the center surround speaker at about the same height as the front speakers. Align the center surround speaker with the front speakers or place it slightly back from the position of the front speakers.



Setting the rear speakers

Place the rear surround speakers facing each other at about 60 to 90 cm above your listening position.



continued

Adjusting the speaker volume of each speaker

— Test tone

1 Press DOLBY PRO LOGIC (or PRO LOGIC on the remote).

"DOLBY PL ON" appears.

2 Press TEST TONE on the remote.

The test tone is heard from the speakers in the following order and the display changes as in the parentheses.

Front left (LEFT) → Center (CENTER) → Front right (RIGHT) → Rear (REAR) → Front (LEFT) → …

3 From your listening position, adjust the volume and balance by pressing the buttons on the remote until the volume level of the test tone from each speaker sounds the same.

To adjust	Press
the balance between the front left and front right speakers	BALANCE LEFT or BALANCE RIGHT repeatedly while "LEFT", "RIGHT" or "CENTER" appears.
the balance between the rear left and rear right speakers	BALANCE LEFT or BALANCE RIGHT repeatedly while "REAR" appears.
the volume of the center speaker	CENTER + or CENTER – repeatedly.
the volume of the rear speakers	REAR + or REAR – repeatedly.

4 Press TEST TONE on the remote when you finish adjusting.

The test tone turns off.

Note

The test tone feature works only for Dolby Pro Logic Surround sound.

Setting the clock

1 Press I/⏻ to turn on the system.

2 Press TIMER SET.

3 Press I◀◀ or ▶▶I repeatedly to set the hour.

4 Press ENTER.

5 Press I◀◀ or ▶▶I repeatedly to set the minute.

6 Press ENTER.

To adjust the clock

1 Press TIMER SET.

2 Press I◀◀ or ▶▶I repeatedly to select "CLOCK SET", then press ENTER.

3 Do the same procedures as step 3 to 6 above.

Notes

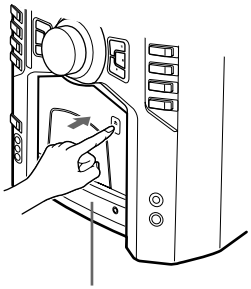
- The clock settings are canceled when you disconnect the power cord or if a power failure occurs.
- You cannot set the clock in Power Saving Mode.

Loading a CD

You can load up to 60 discs into this unit. Turn on the system before you load discs.

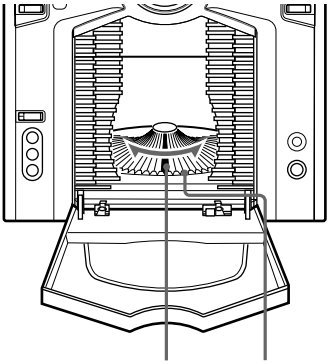
You can also load and play discs with MP3 files. See “Playing a disc with MP3 files” on page 18 for MP3 files.

1 Open the front cover by pressing ⏏ PUSH on the front cover.



Front cover

2 Turn DISC SELECT (or press DISC – or DISC + on the remote) until you find the disc slot where you want to insert a disc, while checking the disc number (written beside every slot and also indicated in the display).

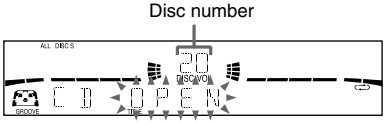


Disc slot at the loading position
(located at the very front)

Disc number

The disc number* at the loading position appears in the display. As you turn DISC SELECT, the disc number changes.

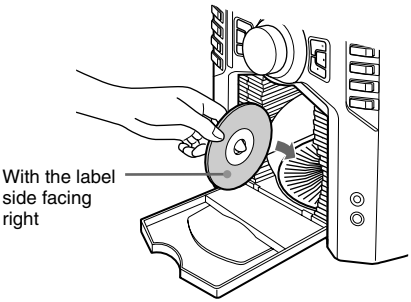
* If you have already loaded discs, the disc number at the playing position appears. When you turn DISC SELECT, the displayed disc number changes to the one at the loading position.



3 Insert a disc with the label side facing right.

Notes

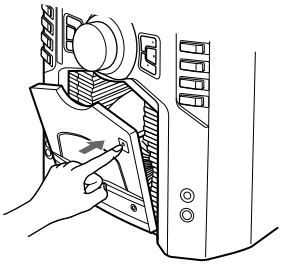
- Make sure you have loaded the disc into each slot at a right angle to the rotary table. If the disc is not put in straight, it may damage the unit or the disc.
- Make sure the rotary table comes to a complete stop before loading or removing discs.



4 Repeat steps 2 and 3 to load additional discs.

continued

5 Close the front cover by pressing ⏏ PUSH on the front cover.



The rotary table turns and the disc slot at the loading position is set to the playing position.

Removing discs

After following step 1 of "Loading a CD" on page 13, remove the discs. Then close the front cover.

Notes

- Always close the front cover except when you load or remove discs.
- Do not load an empty 8 cm CD adaptor. It may damage the unit.
- Do not attach anything such as seals or sleeves to CDs. It may damage the unit or the disc.
- If you drop a disc into the unit and the CD will not go into the slot correctly, consult your nearest Sony dealer.
- When transporting the unit, remove all discs from the unit.
- If you want to remove the disc played, open the front cover. The disc comes to the loading position. Remove the disc after the rotary table comes to a complete stop.

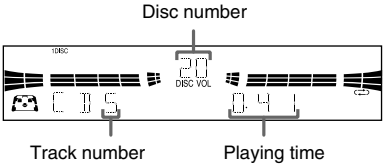
Tip

You can display the original Disc Memos instead of total number of tracks and total playing time (see "Labeling a CD" on page 16) to locate the disc easily when you start playing.
When you select a CD-TEXT disc or disc with MP3 files, the disc title is displayed instead of total number of tracks and total playing time.

Playing a CD

— *Normal Play/Shuffle Play/Repeat Play*

You can play up to 60 CDs continuously. This system lets you play the CD in different play modes.



1 Press CD to switch the function to CD.

2 When you want to specify the disc for 1 DISC, turn DISC SELECT (or press DISC – or DISC + on the remote) until the desired disc number or Disc Memo appears.

3 In stop mode, press PLAY MODE/ DIRECTION (or PLAY MODE on the remote*[1]) repeatedly until the mode you want appears.

Select	To play
ALL DISCS (Normal Play)	All CDs in the disc tray continuously.
1 DISC (Normal Play)	The CD you have selected in original order.
ALBM (Normal Play)	All MP3 files in the folder on the CD you have selected in original order.
ALL DISCS SHUF (Shuffle Play)	The tracks on all CDs in random order.
1 DISC SHUF (Shuffle Play)	The tracks on the CD you have selected in random order.
ALBM SHUF (Shuffle Play)	The MP3 files in the folder on the CD you have selected in random order.
PGM (Program Play)	The tracks on all CDs in the order you want them to be played (see "Programing CD tracks" on page 15).

4 Press ◄ ►.

Note

"ALBM" or "ALBM SHUF" appears even if you have selected a non-MP3 disc or an MP3 disc with no folders. In this case, the disc is played in the "1 DISC" or "1 DISC SHUF" play mode, respectively. See "Playing a disc with MP3 files" on page 18 for MP3 files.

Other Operations

To	Do this
Stop play	Press STOP ■ (or ■ on the remote).
Pause	Press PAUSE ❚❚ (or ❚❚ on the remote). Press again to resume play.
Select a track	During play or pause, press ▶▶I (to go forward) or I◀◀ (to go back).
Find a point in a track	During play, press and hold ▶▶ (to go forward) or ◀◀ (to go back). Release it when you find the desired point.
Select a folder of MP3 files	Press ALBM – or ALBM + repeatedly after step 2.
Select a CD in stop mode	Turn DISC SELECT to the right (to go forward) or to the left (to go back) and release it when you reach the desired CD (or press DISC + or DISC – on the remote).
Play repeatedly (Repeat Play)	Press REPEAT/FM MODE (or REPEAT on the remote*[1]) during play until "REP" or "REP 1" appears. REP*[2]: For all the tracks on a CD up to five times (or endlessly for MP3 files when "SHUF" is displayed). REP 1*[3]: For a single track only. To cancel Repeat Play, press REPEAT/FM MODE (or REPEAT on the remote*[1]) until "REP" or "REP 1" disappears.

*[1] MHC-GS200 only

[2] For all the tracks on all CDs, press PLAY MODE/DIRECTION (or PLAY MODE on the remote[1]) repeatedly in stop mode to select "ALL DISCS". However, you cannot select "ALL DISCS SHUF" and "REP" at the same time.

*[3] When you select "REP 1", that track is repeated endlessly until Repeat Play is canceled.

Programing CD tracks

— Program Play

You can make a program of up to 25 tracks from all the CDs in the order you want to play them.

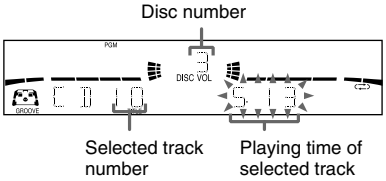
1 Press CD to switch the function to CD.

2 Press PLAY MODE/DIRECTION (or PLAY MODE on the remote*) repeatedly until "PGM" appears.

3 Turn DISC SELECT (or press DISC – or DISC + on the remote) to select a CD.

To program all the tracks on a CD at once, go to step 5 with "CDAL" displayed.

4 Press I◀◀ or ▶▶I repeatedly until the desired track appears.



5 Press ENTER.

The track is programed. The programed track and corresponding step (playing order) appear.

6 Program additional discs or tracks.

To program	Repeat steps
Other discs	3 and 5
Other tracks on the same disc	4 and 5
Other tracks on other discs	3 to 5

7 Press ◄ ►.

continued

Other Operations

To	Do this
Cancel Program play	Press PLAY MODE/DIRECTION (or PLAY MODE on the remote*) repeatedly until "PGM" disappears.
Check the program	Press ⏮ or ⏭ repeatedly during Program Play.
Clear a track or disc from the end	Press CLEAR in stop mode.
Clear the entire program	Press and hold CLEAR in stop mode.
Add tracks or discs to the end of program in stop mode	Perform step 6.

To program the MP3 files

After step 3, press ALBM – or ALBM + repeatedly until the folder you want appears, and then go to step 4. To program all the files on a folder at once, proceed to step 5 with folder name displayed.

Tips

- The program you made remains after Program Play finishes. To play the same program again, press CD, then press ◄► in Program Play mode.
- "– –.– –" appears when the total CD program time exceeds 100 minutes, when you select a CD track whose number is 21 or over or when you programed an MP3 file.
- The programed disc and track numbers remain until you erase them, so that the system plays only the existing disc and track numbers if you replace discs. However, the disc and track numbers that are not found in the system or on the disc are deleted from the program, and the rest of the program is played in the programed order.

* MHC-GS200 only

Labeling a CD

— Disc Memo

You can label up to 60 CDs with titles of up to 20 characters. Whenever you load a labeled CD, the title appears in the display.

You can also label CDs using an optional keyboard (see "Labeling titles through the keyboard" on page 33).

Notes

- You cannot label a CD-TEXT disc.
- To ensure that Disc Memos are not erased from memory, have the system connected to a wall outlet at least once a day.
- You can label a CD only during Normal Play (when "1 DISC", "ALL DISCS" or "ALBM" is displayed) in stop mode.

1 Press CD to switch the function to CD.

If "SHUF" or "PGM" appears, press PLAY MODE/DIRECTION (or PLAY MODE on the remote*) repeatedly until both disappear.

2 Turn DISC SELECT (or press DISC – or DISC + on the remote) until the disc number you want to label appears.

3 Press MENU.

4 Press ⏮ or ⏭ repeatedly until "NAME IN" appears.

5 Press ENTER.

The cursor appears.

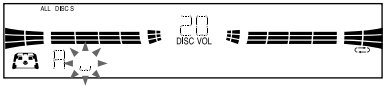
6 Turn DISC SELECT until the character you want appears.

You can input the following characters:

- Upper cases (A – Z)
- Numbers (0 – 9)
- Symbols (‘ – ⁄ , + < > _ = `)

7 Press ▶▶.

The character you selected in step 6 stops flashing and the cursor shifts to the right.



8 Repeat steps 6 and 7 to complete the entire title.

If you make a mistake

Press ◀◀ or ▶▶ until the character you want to change flashes, then repeat steps 6 and 7.

To erase a character

Press CLEAR while the character is flashing. You cannot insert characters.

9 Press ENTER to complete the labeling procedure.

To cancel labeling

Press MENU.

Tip

When you replace a disc with a CD-TEXT disc, the disc title of the CD-TEXT disc is automatically restored. The Disc Memo of the CD-TEXT disc is no longer stored (disappears) when the disc is removed. Note that you cannot change the Disc Memo of a CD-TEXT disc.

Note

The Disc Memo stores the number of the slot in which the CD was loaded. Re-enter the Disc Memo when loading a new CD into that slot.

Checking the Disc Memos

1 Press CD to switch the function to CD.
2 Press MENU.
3 Press ⏮ or ⏭ repeatedly until "NAME CHECK" appears, then press ENTER.
4 Turn DISC SELECT to select the Disc Memos stored in the system memory between 01 and 60, then press MENU.

To check the current Disc Memo

Press DISPLAY repeatedly until the Disc Memo appears in stop mode.

Erasing a Disc Memo

1 Press CD to switch the function to CD. If "SHUF" or "PGM" appears, press PLAY MODE/DIRECTION (or PLAY MODE on the remote*) repeatedly until both disappear.
2 Press MENU.
3 Press ⏮ or ⏭ repeatedly until "NAME ERASE" appears, then press ENTER.
4 Turn DISC SELECT to select the disc number with the Disc Memo you want to erase, then press ENTER.

Erasing all Disc Memos of all discs

1 Press CD to switch the function to CD. If "SHUF" or "PGM" appears, press PLAY MODE/DIRECTION (or PLAY MODE on the remote*) repeatedly until both disappear.
2 Press MENU.
3 Press ⏮ or ⏭ repeatedly until "ALL ERASE" appears, then press ENTER.
4 Press ENTER again until "COMPLETE" appears.

* MHC-GS200 only

Playing a disc with MP3 files

About MP3 files

MP3 (MPEG 1 Audio Layer-3) is a standard technology and format for compressing a sound sequence. The file is compressed to about 1/10 of its original size. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. Playback of some MP3 files may not be possible, depending on the encoding.

Notes on discs

You can play MP3 files recorded on CD-ROMs CD-Rs (recordable CDs), and CD-RWs (rewritable CDs).
The disc must be in the ISO 9660*[1] level 1 or level 2 format, or Joliet in the expansion format.
You can use a disc recorded in Multi Session*[2].

*[1] **ISO 9660 Format**
The most common international standard for the logical format of files and folders on a CD-ROM. There are several specification levels. In Level 1, file names must be in the 8.3 format (no more than eight characters in the name, no more than three characters in the extension ".MP3") and in capital letters. Folder names can be no longer than eight characters. There can be no more than eight nested folder levels. Level 2 specifications allow file names and folder names up to 31 characters long. Each folder can have up to 8 trees.
For Joliet in the expansion format (file and folder names can have up to 64 characters) make sure of the contents of the writing software, etc.

*[2] **Multi Session**
This is a recording method that enables adding of data using the Track-At-Once method. Conventional CDs begin at a CD control area called the Lead-in and end at an area called Lead-out. A Multi Session CD is a CD having multiple sessions, with each segment from Lead-in to Lead-out regarded as a single session.
CD-Extra: This format records audio (audio CD data) on the tracks in session 1 and data on the tracks in session 2.
Mixed CD: This format records data on the first track and audio (audio CD data) on the second and subsequent tracks of a session.

Notes

- With formats other than ISO 9660 level 1 and 2, folder names or file names may not be displayed correctly.
- When naming, be sure to add the file extension "MP3" to the file name.
- If you put the extension "MP3" to a file other than MP3, the unit cannot recognize the file properly and will generate random noise that could damage your speakers.
- The following discs take a longer time to start playback.
  – a disc recorded with complicated tree structure.
  – a disc recorded in Multi Session.
  – a disc to which data can be added (non-finalized disc).
- The encoding method (i.e., the bit rate selected for encoding) will affect the sound quality of the MP3 files.
- The bit rate typically used for MP3 files is 128 kbps.

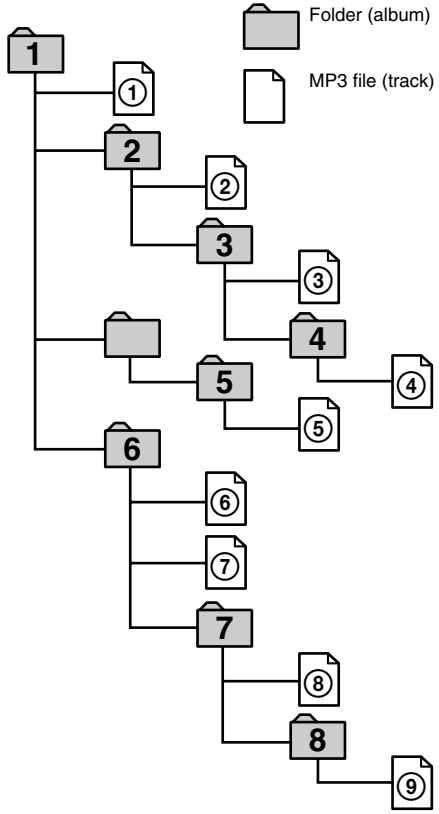
Cautions when playing a disc that is recorded in Multi Session

CD-DA (audio) data or MP3 files stored on a Multi Session CD may be subject to some restrictions on playback.

– If the disc begins with a CD-DA session, it is recognized as a CD-DA (audio) disc, and playback continues until an MP3 session is encountered.
– If the disc begins with an MP3 session, it is recognized as an MP3 disc, and playback continues until a CD-DA (audio) session is encountered.
– The playback range of an MP3 disc is determined by the tree structure of files produced by analyzing of the disc.
– A disc with a mixed CD format will be recognized as a CD-DA (audio) disc.

The playback order of the MP3 files

The playback order of the folders and files is as follows:



Notes

- When the disc is inserted, the player reads all the files on that disc. If there are many folders or non-MP3 files on the disc, it may take a long time for play to begin or for the next MP3 file to start play.
- Do not save unnecessary folders or files other than MP3 ones in the disc to be used for MP3 listening. We recommend that you do not save other types files or unnecessary folders on a disc that has MP3 files.
- A folder that does not include an MP3 files is skipped.
- Maximum folder number: 150 (including root folder and empty folders)
- The maximum number of MP3 files and folders that can be contained on a single disc is 300.
- Playback is possible up to 8 levels.

Tip

To specify a desired playback order, before the folder or file name, input the order by number (e.g., "01," "02"), then record contents onto a disc. (The order differs depending on the writing software.)

Listening to an MP3 file

You can also play discs with MP3 files on this system. See "Playing a disc with MP3 files" on page 18 for MP3 files.

1 Press CD to switch the function to CD.

2 Turn DISC SELECT (or press DISC – or DISC +) to select the desired disc with MP3 files.

3 Press ALBM – or ALBM + repeatedly to select the desired folder.

4 When you want to specify a file in the folder, press I◄◄ or ►►I repeatedly to select the desired file.

Proceed to step 5 when you start playing from the first file in the folder.

5 Press ◄ ►.

Tip

You can perform the operations described under "Playing a CD" (page 14) and "Programing CD tracks" (page 15) only for the files in the folder.

Note

When playing back an MP3 file, the playback elapsed time indication may differ from the actual time in the following cases.

– When you play back a VBR (variable bit rate) MP3 file
– When you perform Fast Forward or Rewind (Manual Search)

Presetting radio stations

You can preset up to 20 FM stations and 10 AM stations. You can then tune in any of those stations simply by selecting the corresponding preset number.

There are two ways to store the station presets.

To	Method
Automatically tune in all of the stations that can be received in your area and then store them manually	Automatic Tuning Preset
Manually tune in and store the radio frequency of your favorite stations	Manual Tuning Preset

Setting presets through automatic tuning

1 Press TUNER/BAND repeatedly to select “FM” or “AM”.

2 Press and hold TUNING – or + until the frequency indication starts to change, then release it.

Scanning stops automatically when the system tunes in a station. “TUNED” and “ST” (for a stereo program) appear.

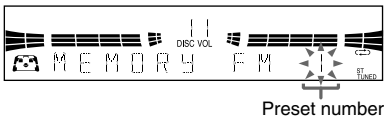
If “TUNED” does not appear and the scanning does not stop

Set the frequency of the desired radio station as described in steps 2 through 7 of “Setting presets through manual tuning”.

3 Press MENU.

4 Press PRESET – or + repeatedly until “MEMORY” appears, then press ENTER.

A preset number appears.



Preset number

5 Press PRESET – or + repeatedly to select the desired preset number.

6 Press ENTER.

“COMPLETE” appears.

The station is stored.

7 Repeat steps 1 to 6 to store other stations.

Setting presets through manual tuning

1 Press TUNER/BAND repeatedly to select “FM” or “AM”.

2 Press TUNING – or + repeatedly to tune in the desired station.

3 Press MENU.

4 Press PRESET – or + repeatedly until “MEMORY” appears, then press ENTER.

A preset number appears.

5 Press PRESET – or + repeatedly to select the desired preset number.

6 Press ENTER.

7 Repeat steps 1 to 6 to store other stations.

Other Operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in “Setting presets through manual tuning”.
Stop setting presets	Press MENU.
Change the preset station	Start over from step 1.

To change the AM tuning interval

The AM tuning interval is factory-set to 9 kHz (10 kHz in some areas). To change the AM tuning interval, tune in any AM station first, then turn off the system. While holding down ENTER, turn the system back on. When you change the interval, all the AM preset stations are erased. To reset the interval, repeat the same procedure.

Note

You cannot change the AM tuning interval in Power Saving Mode.

Tips

- The preset stations are retained for about a day even if you disconnect the mains lead or if a power failure occurs.
- You can label the preset stations (see page 22).
- To improve broadcast reception, reorient or move the supplied antennas near a window or outdoors.

Listening to the radio

You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

Listening to a preset station

— Preset Tuning

Preset radio stations in the tuner's memory first (see "Presetting radio stations" on page 20).

1 Press TUNER/BAND repeatedly to select "FM" or "AM".

2 Press PRESET – or + repeatedly to tune in the desired preset station.

Listening to non-preset radio station

— Manual Tuning

1 Press TUNER/BAND repeatedly to select "FM" or "AM".

2 Press TUNING – or + repeatedly to tune in the desired station.

Tips

- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press REPEAT/FM MODE repeatedly until "MONO" appears. There will be no stereo effect, but the reception will improve.
- Pressing and holding TUNING – or +, the frequency indication changes and scanning stops when the system tunes in a station (Automatic Tuning).
- To record from the radio, see "Recording to a tape" on page 24.

Labeling the preset stations

— Station Name

You can label each preset station with up to 12 characters (Station Name).

1 Tune the preset station you want to label (see "Listening to the radio" on this page).

2 Follow the same procedures as from steps 3 to 9 of "Labeling a CD" on page 16.

To cancel labeling

Press MENU.

To check the preset number and frequency

The station name appears when you tune the labeled station.

To check the preset number and frequency, press DISPLAY. The preset number and frequency are displayed for 4 seconds and it returns to the station name display.

To erase the name

1 Tune the station.

2 Press MENU.

3 Press PRESET – or + repeatedly to select "NAME IN", then press ENTER.

4 Press CLEAR repeatedly to erase the name.

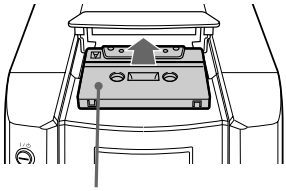
5 Press ENTER.

Loading a tape

You can use only TYPE I (normal) tape.

1 Press ⏏ PUSH on the tape deck.

2 Insert a tape with the side you want to play/record facing up.



With the side you want to play/record facing up

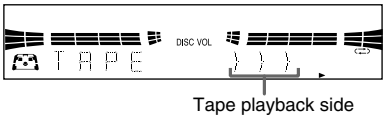
Playing a tape

1 Load a tape.

2 Press TAPE.

3 Press PLAY MODE/DIRECTION repeatedly to select ⇄ to play one side. Select ⇉ or ⇄ to play both sides.

4 Press ◄ ►.



Tape playback side

››› appears for the front side, and ‹‹‹ for the reverse side.

Other Operations

To	Do this
Stop play	Press STOP ■ (or ■ on the remote).
Pause	Press PAUSE ❚❚ (or ❚❚ on the remote). Press again to resume play.
Fast-forward or rewind	Press ◄◄ or ►►.
Remove the cassette	Press ⏏ PUSH on the tape deck in stop mode.

Note

If the system stops during tape playback or recording due to a power failure or other reason, do not attempt to forcibly eject the tape as this may damage the heads. Wait until the power is restored, then be sure to press I/⏻ to turn on the system before ejecting the tape.

Recording to a tape

— CD Synchro Recording/Recording Manually/Program Edit

You can record from a CD (or connected components) or radio. The recording level is adjusted automatically.

Steps	Recording from a CD (CD Synchro Recording)	Recording from a CD (or connected components) or radio manually
1	**Load a recordable tape into the deck.**	
2	**Press CD.**	**Press the function button of the source you want to record.**
3	**Turn DISC SELECT (or press DISC – or DISC + on the remote) to select the CD you want to record.**	**Load the CD (or other audio source), or tune in the station you want to record.**
4	**Press CD SYNC (or CD SYNC on the remote*).**	**Press REC ● PAUSE/START (or REC on the remote*).**
	Tape stands by for recording.	
5	**Press PLAY MODE/DIRECTION repeatedly to select ⇄ to record on one side. Select ↻ or ⇄ to record on both sides.**	
6	**Press REC ● PAUSE/START (or ❚❚ on the remote).** Recording starts.	**Press REC ● PAUSE/START (or ❚❚ on the remote) and then start playing the desired source.**

* MHC-GS200 only.

To stop recording

Press STOP ■ (or ■ on the remote).

Tip

When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.

Note

After step 4, you cannot pause a CD even if you press PAUSE ❚❚ (or ❚❚ on the remote).

Recording a CD by specifying track order

— Program Edit

When programing, make sure the playing times for each side do not exceed the length of one side of the tape.

1 Load a recordable tape into the deck.

2 Program CD tracks following step 1 to 6 in "Programing CD tracks" on page 15.

3 Press CD SYNC (or CD SYNC on the remote*).

Tape stands by for recording and CD pauses for play.

4 Press PLAY MODE/DIRECTION repeatedly to select ⇄ to record on one side. Select ↻ or ⟲ to record on both sides.

5 Press REC ● PAUSE/START (or ❚❚ on the remote).

Recording starts.

To record a disc with MP3 files by specifying folder/file order

After step 1, program the MP3 files following the procedures in "To program the MP3 files" on page 16, then proceed to step 3 above.

Tip

If you select both sides recording and the tape reaches the end of the front side part-way through a track, the entire track is recorded again from the beginning of the reverse side.

Note

After step 3, you cannot pause a CD even if you press PAUSE ❚❚ (or ❚❚ on the remote).

* MHC-GS200 only

Timer-recording radio programs

You can record a preset radio station from a specified time.

To timer-record, you must first preset the radio station (see "Presetting radio stations" on page 20) and set the clock (see "Setting the clock" on page 12).

1 Tune in the preset radio station (see "Listening to the radio" on page 22).

2 Press TIMER SET.

3 Press I◄◄ or ►►I repeatedly to select "REC SET", then press ENTER.

"ON" appears and the hour indication flashes.

4 Set the time to start recording.

Press I◄◄ or ►►I repeatedly to set the hour, then press ENTER.

The minute indication flashes.

Press I◄◄ or ►►I repeatedly to set the minute, then press ENTER.

5 Set the time to stop recording following the procedure in step 4.

The start time appears, followed by the stop time, the preset radio station to be recorded (e.g., "TUNER FM 5"), then the original display appears.

6 Load a recordable tape into the deck.

7 Press I/⏻ to turn off the system.

When the recording starts, the volume is reduced to minimum.

continued

Timer-recording radio programs (continued)

Other Operations

To	Do this
Check the setting	Press TIMER SELECT and press ⏮ or ⏭ repeatedly to select "REC". Then, press ENTER. To change the setting, start over from step 1.
Cancel the timer	Press TIMER SELECT and press ⏮ or ⏭ repeatedly to select "TIMER OFF", then press ENTER.

Notes

- If the system is on at the preset time, the recording will not be made.
- When you use the Sleep Timer, Timer-recording will not turn on the system until the Sleep Timer turns it off.

Adjusting the sound

Enjoying the powerful sound

— GROOVE/V-GROOVE

You can reinforce the bass and create a more powerful sound.
The GROOVE setting is ideal for music sources, and the V-GROOVE setting is ideal for video sources (movies, etc.).

Press GROOVE on the remote.

Each time you press the button, the display changes cyclically as follows:

GROOVE ON → V-GROOVE ON → GROOVE OFF (off)

Tip

GROOVE is factory set to on.

Selecting the sound effect

The preset music menu lets you select the sound characteristics according to the sound you are listening to.

Selecting the effect from the music menu

Press PRESET EQ* repeatedly to select the preset you want.

The preset name appears in the display.
See the chart “Sound effect options”.

Sound effect options

“SUR” appears if you select an effect with surround effects.

Effect	
ROCK POP JAZZ	Standard music sources
GAME	PlayStation 1, 2 and other video game music sources

To cancel the effect

Press PRESET EQ* repeatedly until “FLAT” appears.

Note

The sound effect of this system does not affect DVD 5.1 CH sound.

* For MHC-GS200 on the remote only.

Selecting the surround effect

For MHC-GS300AV

Press SURROUND MODE (or SURROUND on the remote) repeatedly to select the surround effect you want.

SURROUND ON: Reproduces stereo sources in surround sound.

HALL: Reproduces the acoustics of a concert hall.

THEATER: Reproduces the acoustics of a movie theater.

E THEATER: Reproduces the acoustics of a large movie theater.

SURROUND OFF: Cancels the surround mode. The indicator on the SURROUND MODE button lights off.

For MHC-GS200

Press SURROUND on the remote repeatedly to turn the surround mode on or off.

Each time you press the button, the display changes as follows:

SURROUND ON ⟷ SURROUND OFF (off)

Note

When you select other sound effect, the surround effect will be canceled.

Enjoying Dolby Pro Logic Surround sound

(MHC-GS300AV only)

You can enjoy Dolby Pro Logic Surround sound from Dolby Surround-encoded (DOLBY SURROUND) video tapes. Complete the setup and adjustments first (see page 11).

Press DOLBY PRO LOGIC (or PRO LOGIC on the remote) while playing a program source.

To cancel the Dolby Pro Logic Surround sound

Press DOLBY PRO LOGIC (or PRO LOGIC on the remote) again.

Notes

- You cannot use both Dolby Pro Logic Surround sound and other surround effects at the same time.
- When recording the sound, be sure to turn off Dolby Pro Logic Surround sound.
- The surround effect of this system does not affect DVD 5.1 CH sound.

Selecting the sound formation

— Multi room selector

(MHC-GS300AV only)

Press MULTI ROOM repeatedly to select the sound formation. Each time you press the button, the display changes as follows and the speakers producing sound light up on the display.

Display	Sound output
FRONT	Stereo sound from the front speakers.
REAR	Stereo sound from the rear surround speakers.
LINK	Front speaker stereo sound from both the front and rear surround speakers.

Turning off the display

— Power Saving Mode

The demonstration display (display window and buttons lighting and flashing even when the system power is off) and the clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

Press DISPLAY repeatedly while the system is off until the demonstration display and the clock display disappear.

To cancel Power Saving Mode

Press DISPLAY while the system is off. Each time you press the button, the display switches cyclically as follows:

Demonstration display → Clock display* → No display (Power Saving Mode)

* "– –:– –" is displayed if you do not set the clock.

Tips

- The timer continues to operate in Power Saving Mode.
- I/⏻ indicator lights up even in Power Saving Mode.

Using the display

You can check the remaining time of the current track or the entire CD. When a CD-TEXT disc or a disc with MP3 files is loaded, you can also check the information recorded on the disc, such as the titles.

Checking the remaining time

Press DISPLAY repeatedly during normal play.

Each time you press the button, the display changes cyclically as follows:

Elapsed playing time of the current track → Remaining time of the current track or "– –.– –"*1 → Remaining time of the disc*2 or "– –.– –"*1 → Track title (CD-TEXT disc or disc with MP3 files*3 only) → Folder name*1 → Clock display → Effect status

*1 For disc with MP3 files

*2 "– –.– –" appears when "ALL DISCS" is displayed.

*3 When you play back a track with an ID3 tag ver. 1 (ver. 1.0 or 1.1), the ID3 tag appears. The ID3 tag displays only the track title information.

continued

Checking the total playing time

Press DISPLAY repeatedly in stop mode.

Each time you press the button, the display changes cyclically as follows:

TOC display*1 or total folder number of the disc*2 or total number of the current folder*2 → Disc Memo or Disc title*3 or Folder name*2 → Clock display → Effect status

*1 TOC = Table of Contents; displays current disc number, total number of tracks on the disc, and total playing time of the disc

*2 For discs with MP3 files, folder names may not be displayed depending on the play mode.

*3 For CD with CD-TEXT

Depending on the disc, some CD-TEXT information may not appear.

Enhancing video game sound

— Game Sync

You can enjoy the sound effect of video games.

1 Connect a video game player (see "Hooking up optional components" on page 34).

2 Press GAME.

Tips

- The GAME EQ is automatically selected.
- These operations cannot be performed in the Power Saving Mode.
- If you press GAME while the system is off, the system turns on, the function switches to GAME and the equalizer also switches to the GAME (effect status).

Note

The video game machine image may appear on the TV screen even if the system is turned off.

Mixing video game sound with other sound source

— Game Mixing

1 Connect a video game player (see "Hooking up optional components" on page 34).

2 Press the function button of the desired source.

3 Press GAME MIXING.

Each time you press the button the level of the game sound changes cyclically as follows:

MIXING LOW → MIXING MID → MIXING HIGH → MIXING OFF

Tips

- The GAME MIXING indicator lights up while Game Mixing is activated.
- Once Game Mixing is activated, it will remain active while the power is on even if the source sound is changed.

Notes

- If you start recording while Game Mixing is activated, Game Mixing is canceled. To record the mixed sound, press GAME MIXING after step 4 of "Recording from a CD (or connected components) or radio manually" on page 24, and then press REC ● PAUSE/START (or ❚❚ on the remote) to start the recording.
- If you operate the CD controls on the unit (e.g. turn DISC SELECT, etc.) while Game Mixing is activated, the Game Mixing sound output may stop for a few seconds.

Falling asleep to music

— Sleep Timer

You can set the system to turn off after a certain time, so that you can fall asleep to music.

Press SLEEP on the remote.

Each time you press the button, the minute display (the turn-off time) changes cyclically as follows:

SLEEP AUTO* → SLEEP 90MIN → SLEEP 80MIN → SLEEP 70MIN → ··· → SLEEP 10MIN → SLEEP OFF

* The system turns off when the current CD or tape finishes playback (for up to 100 minutes).

To	Press
Check the remaining time**	SLEEP on the remote once.
Change the time to turn off	SLEEP on the remote repeatedly to select the time you want.
Cancel the Sleep Timer function	SLEEP on the remote repeatedly until "SLEEP OFF" appears.

** You cannot check the remaining time when you select "SLEEP AUTO".

Waking up to music

— Daily Timer

You can wake up to music at a preset time. Make sure you have set the clock (see "Setting the clock" on page 12).

1 Prepare the music source you want to play.

- CD: Load a CD. To start from a specific track, make a program (see "Programing CD tracks" on page 15).
- Tape: Load a tape with the side you want to play facing forward.
- Radio: Tune in the preset station you want (see "Listening to the radio" on page 22).

2 Adjust the volume.

3 Press TIMER SET.

4 Press I◄◄ or ►►I repeatedly to select "DAILY SET", then press ENTER.

"ON" appears and the hour indication flashes.

5 Set the time to start playing.

Press I◄◄ or ►►I repeatedly to set the hour, then press ENTER.

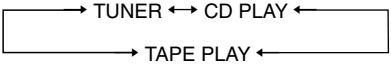
The minute indication flashes.

Press I◄◄ or ►►I repeatedly to set the minute, then press ENTER.

6 Set the time to stop playing following the procedure in step 5.

7 Press I◄◄ or ►►I repeatedly until the music source you want appears.

The indication changes as follows:



8 Press ENTER.

The type of timer, followed by the start time, stop time, and the music source, appear, then the original display appears.

9 Press I/⏻ to turn off the system.

Other Operations

To	Do this
Check the setting	Press TIMER SELECT and press I◄◄ or ►►I repeatedly to select "DAILY", then press ENTER .
Change the setting	Start over from step 1.
Cancel the timer	Press TIMER SELECT and press I◄◄ or ►►I repeatedly to select "TIMER OFF", then press ENTER.

Tip

The system turns on 15 seconds before the preset time.

Notes

- When you use the Sleep Timer, the Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Daily Timer and the Timer-recording at the same time.

Setting the keyboard

You can use the Sony KB-10 keyboard (not supplied). In principle, you may use any IBM*-compatible keyboard with a PS/2 interface.** However, not all keyboards are guaranteed to work properly, so we recommend using the KB-10 keyboard.

* IBM is the registered trademark of International Business Machines Corporation.

** The power consumption must be 120 mA or less.

Note

Hum or noise may enter the AM radio sound depending on the operating environment.

Connect the keyboard connector to the KEYBOARD INPUT jack.

You can connect the keyboard even when the system is turned on.

Labeling titles through the keyboard

You can quickly enter or edit names using a keyboard. You can label a CD only during Normal Play (when “1 DISC”, “ALL DISCS” or “ALBM” is displayed) in stop mode. Keyboard input is performed in insert mode.

1 Perform the following procedure depending on what you want to label.

To label	Do this
A CD	Switch the function to CD and select the desired CD.
A preset station	Switch the function to TUNER and select the desired preset radio station number.

2 Press MENU.

3 Press I◄◄ or ►►I repeatedly until “NAME IN” appears.

4 Press [Enter].

The text input screen appears and the cursor flashes.

5 Enter a title.

Besides letter keys, you can also use the keys shown in the following table.

6 Press [Enter].

“COMPLETE” appears for a few seconds and the title you labeled appears.

Editing operations while labeling

To	Press
Cancel the operation	[Esc]
Move the cursor	[←] or [→]
Erase the character or space at the cursor position	[Delete]
Erase the character or space preceding the cursor	[Back Space]

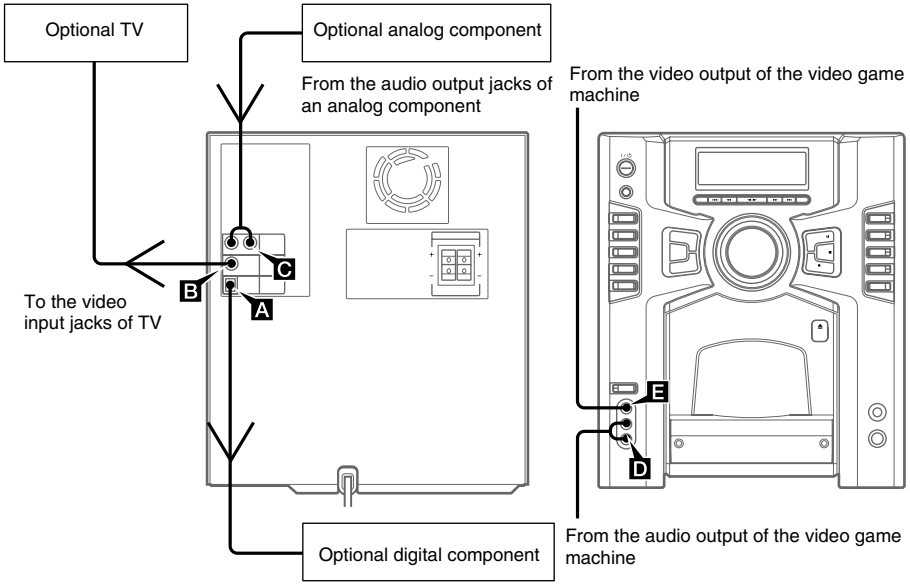
Operating the system through the keyboard

You can operate the system without using the buttons and controls on the unit or on the remote.

As the keyboard substitutes for the following functions	Press
CD PLAY	[F5]
CD PAUSE	[F6]
CD STOP	[F7]
DISC SELECT (DISC +)	[F8]
TUNER/BAND	[F9]
I◄◄	[F10]
►►I	[F11]
DISPLAY	[F12]

Hooking up optional components

To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component.


Optional TV
Optional analog component
From the audio output jacks of an analog component
From the video output of the video game machine
To the video input jacks of TV
A
B
C
D
E
Optional digital component
From the audio output of the video game machine
To the digital input jack of a digital component

A OPTICAL OUT (CD) jack

Use a digital optical cable (square, not supplied) to connect an optional component (such as an MD deck) to this jack. You can then record digital audio from this system.

B VIDEO OUT jack

Use a video cable (not supplied) to connect the video input of TV to this jack. You can then output video to that component from the connected video game through this system.

C VIDEO (MD) IN jacks

Use audio cords (not supplied) to connect an optional component (such as an MD deck, a VCR, etc.) to these jacks. You can then record or listen to analog audio from that component through this system.

D AUDIO IN L/R jacks

Use audio cords (not supplied) to connect a video game machine to these jacks. You can then record or listen to analog audio from that component through this system.

E VIDEO IN jack

Use video cord (not supplied) to connect a video game machine to this jack. You can then output video to the connected TV from that component through this system.

Listening to audio from a connected component

Listening to the analog sound of an MD deck, a VCR, etc.

1 Connect the audio cords.

See “Hooking up optional components” on page 34.

2 Press 5.1CH/VIDEO (MD)* to select “VIDEO” or “MD”.

Start playing the connected component.

To switch the VIDEO function to MD

When you listen to a connected MD deck, perform the following operation.

1 Turn off the system.

2 Press 5.1CH/VIDEO (MD)* while holding down STOP ■.

The function switches to MD.

Tip

Once you enable the MD function, just press 5.1CH/VIDEO (MD)*.

Notes

- The function is factory-set to VIDEO.
- If you want to switch back to the VIDEO funtion, perform the operation described above to switch to the VIDEO function.
- You cannot switch the function in Power Saving Mode.

* VIDEO (MD) for MHC-GS200 or on the remote.

Recording audio from a connected component

1 Connect the audio cords.

See “Hooking up optional components” on page 34.

2 Start recording manually.

See “Recording to a tape” on page 24.

Recording on a connected component

1 Connect an optical cable.

See “Hooking up optional components” on page 34.

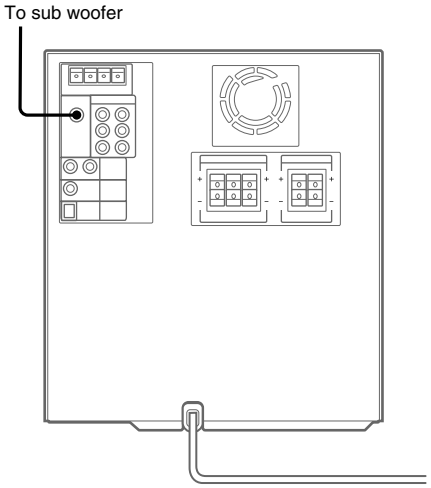
2 Start recording.

Refer to the operating instructions provided with connected component.

Connecting a sub woofer speaker

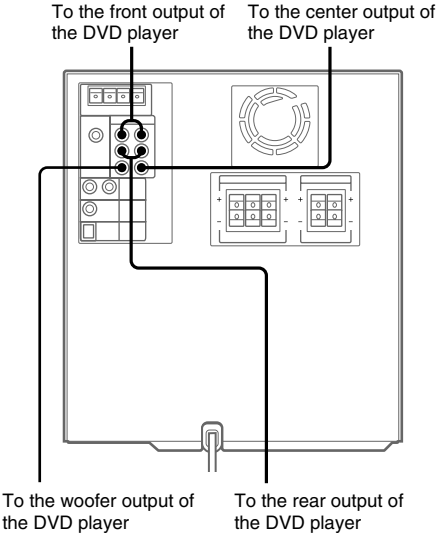
(MHC-GS300AV only)

You can connect an optional sub woofer speaker.



Connecting a DVD player

(MHC-GS300AV only)


To the front output of the DVD player
To the center output of the DVD player
To the woofer output of the DVD player
To the rear output of the DVD player

When your DVD player has 5.1 channel analog outputs

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected DVD player, press 5.1CH/VIDEO (MD) (or 5.1CH on the remote) until “5.1CH” appears.

Note

You cannot enjoy the 5.1 channel surround sound if you connect a DVD player which does not have the 5.1 channel analog outputs.

Problems and remedies

If you have any problem using this system, use the following check list.

First, check that the power cord is connected firmly and the speakers are connected correctly and firmly.

Should any problem persist, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you have not turned on the system (See step 5 of "Hooking up the system" on page 8).

- Press DISPLAY twice when the system is turned off. The demonstration disappears.

"– –:– –" appears in the display.

- A power interruption occurred. Set the clock and timer settings again.

The clock setting/radio presetting/timer is canceled.

- The power cord is disconnected or a power failure occurs longer than half a day.
  Redo the following:
  — "Setting the clock" on page 12
  — "Presetting radio stations" on page 20
  If you have set the timer, also redo "Waking up to music" on page 32 and "Timer-recording radio programs" on page 25.

There is no sound.

- Turn VOLUME clockwise (or press VOL + on the remote).
- The headphones are connected.
- Insert only the stripped portion of the speaker cord into the SPEAKER jack. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections.
- There is no audio output during timer recording.

There is severe hum or noise.

- A TV or VCR is placed too close to the stereo system. Move the stereo system away from the TV or VCR.
- Connect the system to a different wall outlet.
- Install a noise filter (commercially available) to the power line.

The sound from the connected source is distorted when VIDEO function is selected.

- Select the MD function. If "VIDEO" appears in the display when you press 5.1CH/VIDEO (MD) (for MHC-GS300AV or VIDEO (MD) (for MHC-GS200 or on the remote)), switch the function to MD (see "Hooking up optional components" on page 34).

The timer does not function.

- Set the clock correctly.

"DAILY" and "REC" do not appear when you press TIMER SELECT.

- Set the timer correctly.
- Set the clock.

The remote does not function.

- There is an obstacle between the remote and the system.
- The remote is not pointing in the direction of the system's sensor.
- The batteries have run down. Replace the batteries.

The color irregularity on a TV screen persists.

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

Speakers

Sound comes from one channel or unbalanced left and right volume.

- Connect the speaker cords properly (see page 9).
- Place the speakers as symmetrically as possible.
- Connect only one of the supplied speakers to each set of speaker terminals.
- Connect the supplied speakers.

The sound comes from the center speaker only (for MHC-GS300AV only).

- The source being played back is monaural. Press DOLBY PRO LOGIC (or PRO LOGIC on the remote) to turn off the Dolby Pro Logic mode.

continued

There is no sound from the center speaker (for MHC-GS300AV only).

- Connect the speaker cords properly (see page 9).

There is no sound from the rear speakers (for MHC-GS300AV only).

- Connect the speaker cords properly (see page 9).

Sound lacks bass.

- Check that the speaker's + and – jacks are connected correctly.

CD Player

The CD will not play.

- Close the front cover.
- Check if the CD is correctly loaded in the slot.
- The CD is dirty.
- The CD is loaded with the label side facing left.
- There is moisture on the CD.

Play does not start from the first track.

- The player is in Program or Shuffle Play mode. Press PLAY MODE repeatedly until "PGM" or "SHUF" disappears.

MP3 files cannot be played back.

- Recording was not performed according to the ISO 9660 level 1 or level 2 format, or the Joliet in the expansion format.
- The file extension ".MP3" is not added to the file name.
- Files are not stored in MP3 format.

MP3 files take longer to play back than others.

After the unit reads all files on the disc, playback may take more time than usual if:

– the number of folders or files on the disc is very large.

– the folder and file organization structure is very complex.

The album title, track title and ID3 tag do not appear correctly.

- The CD was not recorded in conformance with ISO 9660 level 1 or level 2. Use a CD that conforms with ISO 9660 level 1 or level 2.
- The disc ID3 tag is not ver. 1 (ver. 1.0 or 1.1).

The folder title, track title, ID3 tag and the CD TEXT characters don't appear properly.

The characters that can be displayed by this unit are as follows:

- Upper cases (A to Z)
- Numbers (0 to 9)
- Symbols (' – / , + < > _ = `)

Other characters may not be displayed correctly.

The sound skips.

- The CD is dirty.
- Replace the CD.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands.
- When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

About ID3 tag version 2

Although not a malfunction, the following occurs when an MP3 file containing ID3 tag ver. 2 is played:

– When skipping a portion of ID3 tag ver. 2 (at the beginning of the track), sound is not output. Skip time changes depending ID3 tag ver. 2 capacity.
Example: At 64 kbytes, it is about 2 seconds (with RealJukebox)

– The displayed elapsed playing time when skipping a portion of ID3 tag ver. 2 is inaccurate.
For MP3 files of a bit rate other than 128 kbps, time is not displayed accurately during playback.

– When an MP3 file is created with MP3 conversion software (ex. RealJukebox*), ID3 tag ver. 2 will automatically be written.

* "RealJukebox is a registered trademark of RealNetworks, Inc."
As of December, 2001

Tape Deck

The tape does not record.

- No tape in the cassette holder.
- The tab has been removed from the cassette (see "To save a tape permanently" on page 41).
- The tape has reeled to the end.

The tape does not record nor play or there is a decrease in sound level.

- The heads are dirty (see "Cleaning the tape heads" on page 41).
- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 41).

The tape does not erase completely.

- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 41).

There is excessive wow or flutter, or the sound drops out.

- The capstans or pinch rollers are dirty (see "Cleaning the tape heads" on page 41).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 41).

After pressing ◄ ► or ⏏ PUSH on the tape deck, there is a mechanical noise, "EJECT" appears, and the system enters standby mode automatically.

- The tape was not loaded correctly.

Tuner

There is severe hum or noise ("TUNED" or "ST" flashes in the display).

- Adjust the antenna.
- The signal strength is too weak. Connect the external antenna.
- The supplied FM antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipments.

A stereo FM program cannot be received in stereo.

- Press REPEAT/FM MODE (or REPEAT on the remote for MHC-GS200) so that "ST" appears.

If other troubles not described above occur, reset the system as follows:

1 Unplug the power cord.

2 Plug the power cord back in.

3 Press I/⏻ to turn on the system.

4 Press STOP ■, CLEAR, and DISPLAY at the same time.

The system is reset to the factory settings. All the settings you made are cleared. Be sure to restore all necessary settings.

Messages

One of the following messages may appear or flash in the display during operation.

NO DISC

- There is no CD in the disc slot.

OVER

- You have reached the end of the CD.

PROTECT

- Press I/⏻ (Power) to turn off the system. Turn on the system again after a while.

PUSH STOP

- You pressed PLAY MODE/DIRECTION during play.

STEP FULL

- You tried to program 26 or more tracks (steps).

Precautions

On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

On safety

- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the component, unplug the system and have it checked by qualified personnel before operating it any further.
- The nameplate is located on the rear exterior.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- The AC power cord must be changed only at a qualified service shop.

On placement

- Do not place the system in an inclined position.
- Do not place the system in locations where it is:
  - — Extremely hot or cold
  - — Dusty or dirty
  - — Very humid
  - — Subject to vibrations
  - — Subject to direct sunlight.

On heat buildup

- Although the unit heats up during operation, this is not a malfunction.
- Place the unit in a location with adequate ventilation to prevent heat buildup in the unit.

If you continuously use this unit at a large volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.

To prevent a malfunction, do not cover the ventilation hole for the cooling fan.

On operation

- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player. Should this occur, the system will not operate properly. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any discs.

If you have any questions or problems concerning your stereo system, please consult your nearest Sony dealer.

On the speaker system

The MHC-GS200 speaker system is not magnetically shielded. Therefore, leave a space of 5 to 10 cm or more when placing the speakers next to a television.

Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents.
- Do not expose the CD to direct sunlight or heat sources.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.

Notes on CD-R and CD-RW discs

This unit can play the following discs:

Type of discs	Label on the disc
Audio CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 files	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

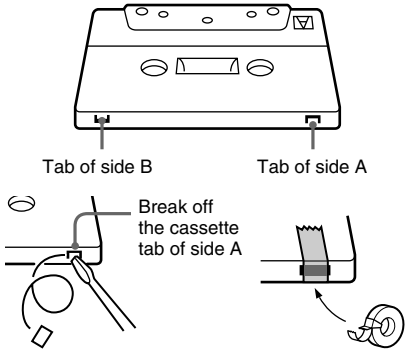
- Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording condition or the drive's characteristics.
- You can also play a CD-R/CD-RW that is not finalized.
- You cannot play CD-R/CD-RW recorded in Multi Session that have not ended by "closing the session".

Cleaning the cabinet

Use a soft cloth slightly moistened with mild detergent solution.

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated. If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.



Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise the tape may get entangled in the parts of the tape deck and become damaged.

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetizing the tape heads

Demagnetize the tape heads and the metal parts that have contact with the tape every 20 to 30 hours of use with a separately sold demagnetizing cassette. For details, refer to the instructions of the demagnetizing cassette.

Specifications

Amplifier section

MHC-GS300AV/GS200

U.S.A. models:

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohms loads both channels driven, from 120 – 10,000 Hz; rated 60 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

MHC-GS300AV

Front speaker:

Continuous RMS power output: 60 + 60 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion: less than 0.09% (6 ohms at 1 kHz, 35 watts)

Center speaker:

Continuous RMS power output: 30 watts (6 ohms at 1 kHz, 10% THD)

Rear speaker:

Continuous RMS power output: 25 + 25 watts (6 ohms at 1 kHz, 10% THD)

MHC-GS200

Continuous RMS power output: 60 + 60 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion: less than 0.09% (6 ohms at 1 kHz, 35 watts)

Inputs
VIDEO (MD) IN (phono jacks): voltage 250 mV/450 mV, impedance 47 kilohms
GAME (AUDIO) IN (phono jack): voltage 450 mV, impedance 47 kilohms
AUDIO IN (phono jacks): 450mV 47 kilohms
5.1CH INPUT (MHC-GS300AV only):
FRONT (phono jacks): voltage 450 mV, impedance 47 kilohms
REAR (phono jacks): voltage 450 mV, impedance 47 kilohms
CENTER (phono jack): voltage 450 mV, impedance 47 kilohms
SUB WOOFER (phono jack): voltage 450 mV, impedance 47 kilohms

Outputs
PHONES (stereo phono jack): accepts headphones of 8 ohms or more
FRONT SPEAKER: accepts impedance of 6 to 16 ohms
SURROUND SPEAKER REAR (MHC-GS300AV only): accepts impedance of 6 to 16 ohms
SURROUND SPEAKER CENTER (MHC-GS300AV only): accepts impedance of 6 ohms
SUB WOOFER (MHC-GS300AV only): voltage 1 V, impedance 1 kilohm

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ = 780 nm) Emission duration: continuous
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Wavelength	780 – 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

OPTICAL OUT (CD)
(Square optical connector jack, rear panel)

Wavelength	660 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette
Wow and flutter	±0.15% W.Peak (IEC) 0.1% W.RMS (NAB) ±0.2% W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	
North American model:	75 ohms unbalanced
Australian model:	75 ohms balanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
North American model:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
Other model:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

Speaker

Front speaker
SS-GS500AV for MHC-GS300AV:

Speaker system	3-way, bass-reflex type magnetically shielded type
Speaker units	
Woofer:	15 cm, cone type
Tweeter:	5 cm, cone type
Super Tweeter:	2 cm, dome type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 210 × 325 × 279 mm
Mass	Approx. 4.1 kg net per speaker

SS-GS200 for MHC-GS200:

Speaker system	3-way, bass-reflex type
Speaker units	
Woofer:	15 cm, cone type
Tweeter:	5 cm, cone type
Super Tweeter:	2 cm, dome type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 210 × 325 × 241 mm
Mass	Approx. 3.3 kg net per speaker

Rear speaker (MHC-GS300AV only)
SS-RS370 for MHC-GS300AV:

Speaker system	1-way, 1-unit, bass-reflex type
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 215 × 120 × 128 mm
Mass	Approx. 0.8 kg net per speaker

Center speaker (MHC-GS300AV only)
SS-CT370 for MHC-GS300AV:

Speaker system	1-way, 1-unit, bass-reflex type magnetically shielded
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 280 × 120 × 127 mm
Mass	Approx. 1.0 kg net per speaker

General

Power requirements	
North American model:	120 V AC, 60 Hz
Australian model:	220 – 240 V AC, 50/60 Hz
Power consumption	
MHC-GS300AV:	180 watts
MHC-GS200:	120 watts
Dimensions (w/h/d) incl. projecting parts and controls	Approx. 280 × 325 × 465 mm
Mass	
MHC-GS300AV:	Approx. 9.1 kg
MHC-GS200:	Approx. 8.7 kg
Supplied accessories:	Remote commander (1) Batteries (2) AM loop antenna (1) FM lead antenna (1) Rear speaker cords (MHC-GS300AV only) (2) Center speaker pads (attached to the backside of the center speaker) (MHC-GS300AV only) (2)
Optional accessories:	KB-10 The optional accessories for this system are subject to change without notice. For details, consult your nearest Sony dealer.

Design and specifications are subject to change without notice.

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